

## PATENT ABSTRACTS OF JAPAN

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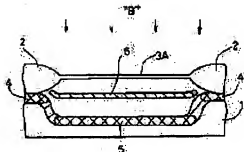
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## (54) MANUFACTURE OF SEMICONDUCTOR DEVICE

## (57)Abstract:

PROBLEM TO BE SOLVED: To attain a high threshold voltage with low ion implantation, without causing degradation of isolation characteristic.

SOLUTION: Boron ions ( $11B^+$ ) are implanted under conditions for penetrating an LOCOS oxide 2 deposited on a P-type silicon substrate 1, in order to form a channel stopper layer 4 beneath the LOCOS oxide 2 of the same time as with a first channel ion implantation layer 5 in a deep region within the substrate 1. Subsequently, boron ions ( $11B^+$ ) are implanted from above the substrate 1 under conditions of not penetrating the LOCOS oxide 2, in order to form a second channel ion implantation layer 6 beneath a region for forming a diffusion layer in the substrate which is shallower than the first channel ion implantation layer 5.



## LEGAL STATUS

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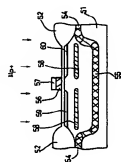




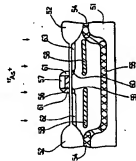
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